APPENDIX A

ADEM UST CLOSURE SITE ASSESSMENT REPORT

ADEM

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Water: 279-3051
Groundwater: 270-5631
Field Operations: 272-8131
Laboratory: 277-6718
Mining: 394-4326
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March 7, 2001

Mr. Nolan Lee Jaye
U. S. Army Garrison
Building 215, 15th Street
Ft. McClellan, Alabama 36205-5000

Dear Mr. Jaye:

RE: **NO FURTHER ACTION**
Building 1876, Boiler House #4
Ft. McClellan, Calhoun County, Alabama
Facility I.D. NO: 11953-015-015816

The Department has reviewed the Closure Site Assessment Report, dated August 30, 2000 for the above-referenced site. As a result of this review, it has been determined that no further investigative or corrective actions as required under ADEM Admin. Code R. 335-6-15.26-.29 will be required for this site at this time.

Please use a complete reference line in all future correspondence, including Facility Identification Number, name, address, and Incident Number (UST- - -), where applicable. Sites that are not registered will not have an Identification Number and should be labeled (NOT REGISTERED). Because our filing system is dependent on the use of the Facility Identification Number, we may have to return correspondence and reports that do not provide this information.

If there are any questions, please contact me at 334/271-7792.

Sincerely,

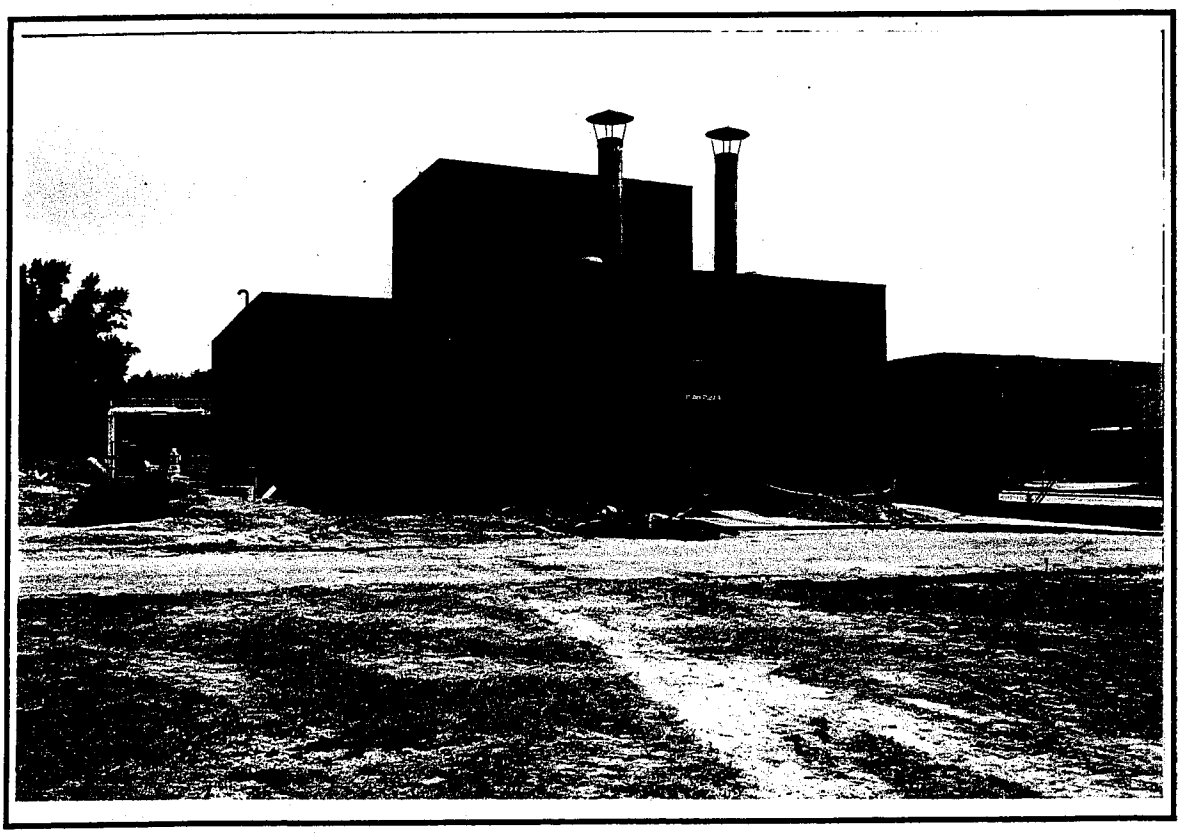
John W. Pierce, Hydrogeologist
UST Corrective Action Section
Groundwater Branch
Water Division

JWP/nm

KARST
ENVIRONMENTAL
ENVIRONMENTAL CONSULTING

628 Valley Street
Birmingham, Alabama 35226

Telephone (205) 979-4320



UST CLOSURE SITE ASSESSMENT

SUBJECT SITE:
U S ARMY GARRISON--BUILDING 1876
BOILER HOUSE NO#4
FT. McCLELLAN, ALABAMA 36205

DATED:
SEPTEMBER 13, 2000

ADEM UST CLOSURE
SITE ASSESSMENT REPORT

(Use a Separate form for a group of tanks in each tank pit)

FACILITY I.D. NO.: 11953.015.015816

DATE OF THIS REPORT: AUG 30, 2000

INCIDENT NO. (If applicable). UST__-N/A-__

UST OWNER:

FACILITY COUNTY: CALHOUN

ADDRESS: U.S. ARMY GARRISON
BLDG 215 15TH ST
FT. McCLELLAN, AL
36205-5000

FACILITY NAME: US ARMY

LOCATION: BLDG 1876

CONTACT NAME: MR. NOLAN LEE JAYE

CONTACT PHONE #: (256) 848-3120

ADDRESS: BOILER HOUSE #4
FT McCLELLAN, AL

NAME OF CONTRACTOR USED TO CLOSE (REMOVE) TANK: ALLEN EXCAVATING CO

NAME OF CONSULTANT CONDUCTING ASSESSMENT: KARST ENVIRONMENTAL

NAME OF LABORATORY USED: KARST

PRIOR TO BEGINNING CLOSURE, THE CONTRACTOR SHOULD BECOME FAMILIAR WITH ALL CLOSURE PROCEDURES IN AMERICAN PETROLEUM INSTITUTE (API) BULLETIN 1604, "REMOVAL AND DISPOSAL OF USED UNDERGROUND PETROLEUM STORAGE TANKS" AND API BULLETIN 2015 "CLEANING PETROLEUM STORAGE TANKS". THESE API BULLETINS ARE AVAILABLE FROM THE AMERICAN PETROLEUM INSTITUTE.

NUMBER OF TANKS CLOSED: TWO (2) STEEL

NUMBER OF TANKS REMAINING AT SITE: ONE (GENERATOR TANK)

CLOSURE DATE: AUGUST 24-25, 2000

UNIQUE TANK #:					
TANK SIZE:	120" x 80'	120" x 80'			
TANK CAPACITY:	50,000	50,000			
TANK AGE:	28 YRS	28 YRS			
DATE TANK LAST USED:	8/00	8/00			
SUBSTANCE STORED:	DIESEL #6	DIESEL #6			
TYPE OF PRODUCT PIPING:	S	S			
(Pressurized/Suction)					
FARM TANK: N/A	☐	☐	☐	☐	☐
HEATING OIL TANK:	■	■	☐	☐	☐

BOILER TANKS

1. COMPLETE THE FOLLOWING SECTION FOR ALL CLOSURES:

a. Provide the results of a 500 ft. survey for domestic water supply wells in the following table and place their locations on the attached site map: NONE REPORTED ON BASE

Name of Owner of Domestic Water Supply Well	Distance from UST Site	Depth of Well	Status: Active or Inactive?
N/A			

b. Provide the results of a 1,000 ft. survey for public water supply wells in the following table and place their locations on the attached site map: NONE USED ON BASE

Name of Owner of Public Water Supply Well	Distance from UST Site	Depth of Well	Status: Active or Inactive?
N/A			

c. Is the UST site located in a delineated wellhead protection or source water area?

YES ☐ NO ☒

d. Are there any public water supply surface water intakes within 500 ft. of the UST site?

YES ☐ NO ☒

If yes, locate the intake on the attached site map.

N/A

NOTE: If an active domestic water supply well or an active public water supply well is located within 500 ft. or 1,000 ft. respectively of the UST site, or if the answer to 1c. or 1d. is Yes, the Department may require groundwater sampling to occur at the UST site. If the groundwater sampling is not performed by the owner/operator during the closure site assessment, the Department may require that groundwater sampling occur as part of a Preliminary Investigation.

Groundwater sampling remains a requirement of the closure site assessment when shallow groundwater is present or when performing an in-place closure site assessment.

e. Indicate the current on-site land use and the most likely future land use:

Current On-Site Land Use		Most Likely Future On-Site Land Use	
Residential	☐	Residential	☐
Commercial	☐	Commercial	☐
Other	☒	Other	☒
Describe: MILITARY RESERVATION - BOILER HOUSE OPERATION		Describe: SAME AS CURRENT USE	

f. Describe the current off-site land use within 500 ft of the UST site. State whether the area, in general, is residential, commercial, mixed residential/commercial or other: OTHER: MILITARY

(SEE PAGE NO#16)

North:	ROAD; PARKING AREA; PARADE/DRILL FIELD	
	Northeast:	
	Northwest:	
South:	WOODED; ROAD; DORMITORY/CLASSROOMS (BLDG 1802);	
	Southeast:	RECREATIONAL FIELDS
	Southwest:	
West:	ROAD; PAVED PARKING LOTS; DORMITORY/CLASSROOM COMPLEX	
East:	WOODED TRACTS	

COMPLETE THE FOLLOWING SECTIONS AS APPROPRIATE BASED ON THE TYPE OF CLOSURE CONDUCTED:

2. TANK CLOSURE BY REMOVAL:

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site. FIG NO# 1 → PAGE NO# 16

b. Attach plan and sectional views of the excavation and include the following: FIG NO# 2 → FIG NO# 3

1. All appropriate excavation dimensions. PAGE NO# 16
2. All soil sample locations and depths using an appropriate method of identification. FIG NO# 2
3. Location of areas of visible contamination. NONE NOTED
4. Former location of tank(s), including depth, with tank Identification Number.

	YES *	NO
c. Is the groundwater more than 5 feet below the bottom of the excavation?	☒	☐
If no, provide the depth from the ground surface to the groundwater table.	Feet:	N/A

*(ROCK @ 12 FT)

Indicate method used to determine water table depth:	YES	NO
1. Excavation extended 5 feet below base of pit: BEDROCK @ 12 FEET	☒	☐
2. Boring or (OBS) monitoring well: ROCK @ 12 FEET	☒	☐
3. Topographic features (Method must be approved by ADEM prior to use):	☐	☒

	YES	NO
d. Was there a notable odor found in the excavation?	☐	☒

If yes,

(1) The odor strength was (mild) (strong) (other) describe: NON-DETECTABLE

(2) The odor indicates what type of product: (gasoline)(diesel) (waste oil) (kerosene) (other) describe: NO PETROLEUM ODOR IMPARTED

PID READINGS (HNU):
IN WALLS: <1.0 PPM
IN SPOILS: <1.0 PPM

	YES	NO
e. Was there water in the excavation?	☒	☐

If yes, how was it handled?	YES	NO
1. One time discharge to sanitary sewer with local approval?	☐	☐
2. Hauled to facility capable of treating constituents of petroleum products in water?	☐	☐
3. Hauled to local POTW with local approval?	☐	☐
4. Treated on-site with NPDES approved discharge?	☐	☐
5. Other? Explain: LEFT IN BOTTOM OF PIT		

→ WATER WAS DRAINAGE FROM BOILER HOUSE THAT ACCUMULATED IN TANK VAULT

f. Was free product found in the excavation? YES ☐ NO ☒

If yes,
1. How was free product handled? Describe: N/A
2. What was the measured thickness of free product? N/A

g. Were visible holes noted in the tank(s)? YES ☐ NO ☒

If yes,
Indicate which tanks(s) by the Unique Tank Number: NO HOLES NOTED

Also, describe the location(s) and provide general description as to the size and number of holes for above noted tanks, (Example: 3 square feet of pinholes or 3 inch diameter hole):

TANKS WERE OF STEEL CONSTRUCTION AND HAD BEEN INTERIOR LINED IN 1990-91. TANKS WERE ALSO PROTECTED BY AN IMPRESSED CURRENT SYSTEM. TANKS WERE IN GOOD CONDITION WITH ONLY A FEW PITTED AREAS OBSERVED

h. Describe the soil type and thickness of all soil layers encountered in the excavation:

SEE FIG NO # 3 (SECTION VIEW): MD-BROWN & TAN-BROWN CLAY & SILTY CLAY CONTAINING (STEEPLY DIPPING) BEDS OF WEATHERED TAN SHALE ROCK (SHALE IS METAMORPHIC "SCHISTOSE, GRAPHITIC, TALC-LIKE", AND CONTAINS QUARTZITE VEINS & SOME ROCK PEBBLES (TO 12 FEET); HARD BEDROCK @ 12 FT

i. Was the excavation backfilled? YES ☒ NO ☐

If yes, provide the date of backfilling: PARTIALLY BACKFILLED ON 8/26/00 (REMAINING CLEAN FILL LATER)

DO NOT BACKFILL WITH MATERIAL THAT HAS OR POTENTIALLY HAS A TPH OF GREATER THAN 100 PPM!

3. TANK CLOSURE WITHOUT REMOVAL(CLOSED IN-PLACE):

N/A

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site.

CLOSED BY REMOVAL

b. Attach plan and sectional views of the site and include the following:

1. Location of the tank(s) including depth,
2. Location of tank(s) with respect to other tanks, if applicable,
3. Soil boring locations and depths at which soil samples were taken,
4. Boring logs.

c. Attach groundwater sampling data, if required based on depth to groundwater.
Refer to Closure Site Assessment Guidance for further details regarding requirements for groundwater sampling.

N/A

CLOSED BY REMOVAL

d. Is the groundwater more than 5 feet below the bottom of the tank? YES ☐ NO ☐

Provide the depth from the ground surface to the groundwater table. Feet: _____

Refer to Closure Site Assessment Guidance (page 11) for further details regarding requirements for determining groundwater elevation.

e. Was there a notable odor found in the bore holes? YES ☐ NO ☐

If yes,
(1) The odor strength was (mild) (strong) (other) describe: _____

(2) The odor indicates what type of product: (gasoline) (diesel) (waste oil) (kerosene) (other) describe: _____

f. Was free product found in the bore holes? YES ☐ NO ☐

If yes,
1. How was free product handled? Describe: _____

2. What was the measured thickness of free product? _____

g. Describe the soil type and thickness of all soil layers encountered in the bore holes and provide boring logs:

_____

_____

_____

h. Specify the inert solid material used to fill the tank(s):

_____

_____

i. Provide the date the tank(s) were filled: _____

j. Were the bore holes properly sealed with bentonite/soil? YES ☐ NO ☐
If yes, provide the date: _____

✓4. PRODUCT PIPING CLOSURE BY REMOVAL:

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site. FIG NO# 1 → PAGE NO# 16

b. If the piping was longer than 10 feet, attach plan and sectional views of the piping trench and include the following: FIG NO# 2 → PAGE NO# 9 (DIAGRAM)

1. All appropriate excavation dimensions and length of piping, LENGTH = 50-60 FEET
2. All soil sample locations and depths using an appropriate method of identification. FIG NO# 2
3. Location of areas of visible contamination. NONE NOTED

	YES	NO
c. Was the piping purged of product prior to closure?	☒	☐
If yes, was the product properly disposed of?	☒	☐

	YES	NO
d. Is the groundwater more than 5 feet below the bottom of the piping trench?	☒	☐

If no, provide the depth from the ground surface to the groundwater table. Feet: N/A

Indicate method used to determine water table depth:	YES	NO
1. Excavation extended 5 feet below base of trench: ROCK @ 12 FEET	☒	☐
2. Boring or monitoring well: (NO GROUNDWATER)	☐	☒
3. Topographic features (Method must be approved by ADEM prior to use):	☐	☒

	YES	NO
e. Was there a notable odor found in the piping trench?	☐	☒

If yes,

(1) The odor strength was (mild) (strong) (other)
describe: NON-DETECTABLE. NO PID (HNU) READINGS GREATER THAN 1.0 PPM

(2) The odor indicates what type of product:
(gasoline) (diesel) (waste oil) (kerosene) (other)
describe: NO DIESEL ODOR IMPARTED

	YES	NO
f. Was there water in the piping trench?	☐	☒

If yes, how was it handled?	YES	NO
1. One time discharge to sanitary sewer with local approval?	☐	☐
2. Hauled to facility capable of treating constituents of petroleum products in water?	☐	☐
3. Hauled to local POTW with local approval?	☐	☐
4. Treated on-site with NPDES approved discharge?	☐	☐
5. Other? Explain: N/A		

	YES	NO
g. Was free product found in the piping trench?	☐	☒

If yes,

1. How was free product handled? Describe: N/A
2. What was the measured thickness of free product? N/A

	YES	NO
h. Were visible holes noted in the piping?	☐	☒

If yes, indicate the location(s) and provide a general description as to the size and number of holes:
SEE DIAGRAM ON PAGE NO. 9 - PIPING TOTALLY CONTAINED WITHIN LARGE DIAMETER CONDUIT.

i. Describe the soil type and thickness of all soil layers encountered in the piping trench:
SEE PART 2.h OF THIS REPORT; PAGE NO #9; AND SECTION VIEW OF TANK AREA IN FIG NO #3.

	YES	NO
j. Was the piping trench backfilled?	☒	☐

If yes, provide the date of backfilling: AUGUST 25-26, 2000

DO NOT BACKFILL WITH MATERIAL THAT HAS OR POTENTIALLY HAS A TPH OF GREATER THAN 100 PPM!

N/A

5. PRODUCT PIPING CLOSURE WITHOUT REMOVAL (CLOSED IN-PLACE):

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site.

b. Attach plan and sectional views of the site and include the following:

1. Location of the piping including depth,
2. Location of piping with respect to tank(s), if applicable.
3. Soil boring locations and depth at which soil samples were taken,
4. Boring logs.

CLOSED By REMOVAL

c. Attach groundwater sampling data, if required based on depth to groundwater.
Refer to Closure Site Assessment Guidance for further details regarding requirements for groundwater sampling.

	YES	NO
d. Was the piping purged of product prior to closure?	☐	☐
If yes, was product properly disposed of?	☐	☐
e. Was the piping capped?	☐	☐
f. Is the groundwater more than 5 feet below the bottom of the excavation?	☐	☐

Provide the depth from the ground surface to the groundwater table. Feet: _____

Refer to Closure Site Assessment Guidance (page 11) for further details regarding requirements for determining groundwater elevation.

	YES	NO
g. Was there a notable odor found in the bore holes?	☐	☐

If yes,
(1) The odor strength was (mild) (strong) (other) describe: _____

(2) The odor indicates what type of product: (gasoline) (diesel) (waste oil) (kerosene) (other) describe: _____

h. Was free product found in the bore holes? YES ☐ NO ☐

If yes,

1. How was free product handled? Describe: _____

N/A

2. What was the measured thickness of free product? _____

CLOSED By REMOVAL

i. Describe the soil type and thickness of all soil layers encountered in the bore holes and provide boring logs:

_____

_____

_____

_____

j. Were the bore holes properly sealed with bentonite/soil? YES ☐ NO ☐

If yes, provide the date: _____

6. GROUNDWATER SAMPLING (If required by attached closure guidelines):

a. Indicate the following on the plan and section views required by Section 2.b., 3.b, 4.b, or 5.b. above:

NOT REQUIRED

1. The location and depth of the 1 up-gradient and 3 down-gradient borings or monitoring wells. (Monitoring wells in lieu of borings are not required, but may be desirable in certain situations.)

2. The most probable direction of groundwater flow. State basis for determining direction:

_____

_____

_____

b. Was a monitoring well used? YES ☐ NO ☐

If yes, attach a schematic drawing of the well(s) and all boring logs.

c. **SUMMARY OF GROUNDWATER SAMPLING RESULTS:**

Date of Sampling: NOT REQUIRED

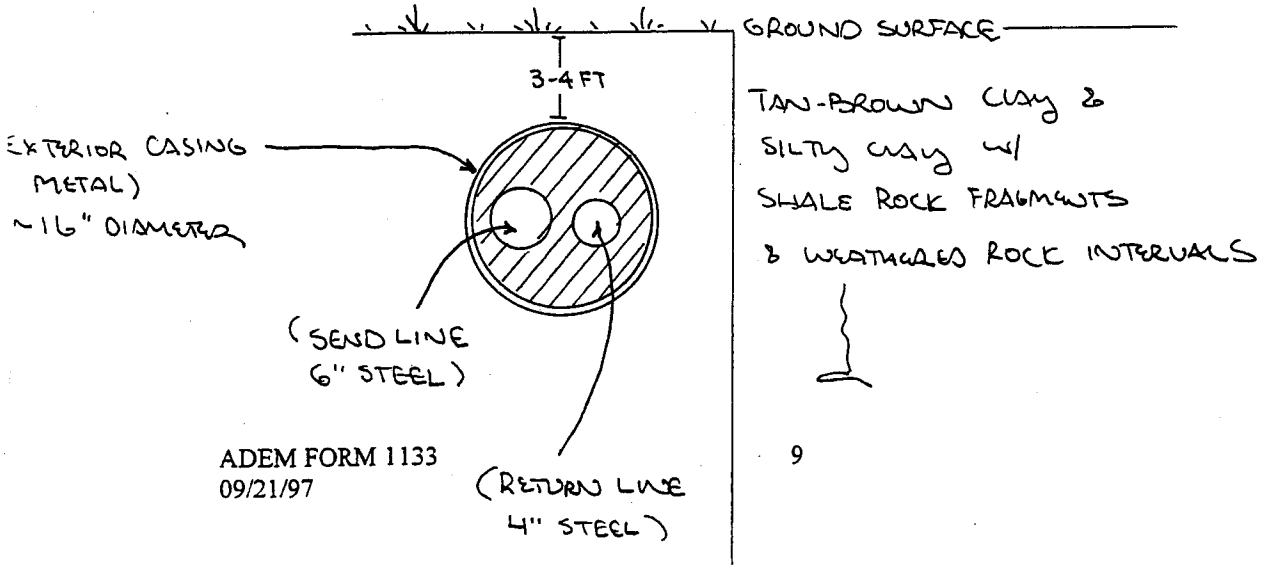
Boring or MW #:							
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Benzene							
Ethylbenzene							
Toluene							
Xylenes							
MTBE							
Anthracene							
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b) fluoranthene							
Benzo(k)fluoranthene							
Benzo(g,h,i)perylene							
Chrysene							
Fluoranthene							
Fluorene							
Naphthalene							
Phenanthrene							
Pyrene							
Lead							

Note: Attach additional tables as needed based on number of groundwater samples or variations in sampling dates.

N/A

d. Attach the original chain of custody record (**copies are not acceptable**) and the original laboratory data sheet (**copies are not acceptable**) for each sample.

GENERALIZED PIPING X-SECTION :
(NOT TO SCALE)



7. SUMMARY OF SOIL ANALYTICAL DATA

a. Provide the analytical data obtained from the site in the following tables:

TANK PIT SAMPLES:

Date of Sampling: 8/25/00

Sample #:	1876	1876	1876	1876	1876	1876	1876
	W1	W2	W3	W4	C05	W6	W7
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPH OPTION:							
TPH (YES)	<10	<10	<10	<10	<10	<10	<10
Lead							
COC OPTION:							
Benzene							
Ethylbenzene							
Toluene							
Xylenes							
MTBE							
Anthracene							
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b) fluoranthene							
Benzo(k)fluoranthene							
Benzo(g,h,i)perylene							
Chrysene							
Fluoranthene							
Fluorene							
Naphthalene							
Phenanthrene							
Pyrene							
Lead							

Note: Attach additional tables as needed based on number of soil samples or variations in sampling dates.

"W" INDICATES SOIL TEST COLLECTED FROM LOWER 1/3 OF UST EXCAVATION

7. SUMMARY OF SOIL ANALYTICAL DATA

a. Provide the analytical data obtained from the site in the following tables:

TANK PIT SAMPLES:

Date of Sampling: 8/25/00

Sample #:	1876 W8	1876 W9	1876 W10				
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPH OPTION:							
TPH (YES)	<10	<10	<10				
Lead							
COC OPTION:							
Benzene							
Ethylbenzene							
Toluene							
Xylenes							
MTBE							
Anthracene							
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b) fluoranthene							
Benzo(k)fluoranthene							
Benzo(g,h,i)perylene							
Chrysene							
Fluoranthene							
Fluorene							
Naphthalene							
Phenanthrene							
Pyrene							
Lead							

Note: Attach additional tables as needed based on number of soil samples or variations in sampling dates.

"W" INDICATES SOIL TEST COLLECTED FROM LOWER 1/3 OF UST EXCAVATION

PIPING & DISPENSER SAMPLES:

Date of Sampling: 8/30/00

Sample #:	1876 PI1	1876 PI2	1876 PI3	1876 PI4	1876 AI5	1876 PI6	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPH OPTION:							
TPH (YES)	<10	<10	<10	<10	<10	<10	
Lead							
COC OPTION:							
Benzene							
Ethylbenzene							
Toluene							
Xylenes							
MTBE							
Anthracene							
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b) fluoranthene							
Benzo(k)fluoranthene							
Benzo(g,h,i)perylene							
Chrysene							
Fluoranthene							
Fluorene							
Naphthalene							
Phenanthrene							
Pyrene							
Lead							

Note: Attach additional tables as needed based on number of soil samples or variations in sampling dates.

ATTACHED

b. Attach the original chain of custody record (**copies are not acceptable**) and the original laboratory data sheet (**copies are not acceptable**) for each sample.

8. EXCAVATED SOIL

ALL EXCAVATED SOIL REQUIRES ANALYSIS PRIOR TO DISPOSAL. TANK CLOSURE SAMPLES FROM THE EXCAVATION MAY NOT BE REPRESENTATIVE OF THE LEVEL OF CONTAMINATION IN THE EXCAVATED SOIL.

For safety and other considerations, it is recommended that open pits and piping trenches should be backfilled as soon as possible with **clean backfill. Soils which have TPH levels greater than 100 ppm or soils for which the level of contamination has not been determined shall not be returned to the excavation pit(s) or piping trenches.**

a. If tank was closed by removal, provide an estimate of the volume of soil removed: SEE PAGE NO # 16 — 300+ cubic yds

b. Provide a summary of analytical results for the excavated soil:

Date of Sampling: 8/25/00

Sample #	TPH Results mg/kg	Lead Results (If applicable) mg/kg
1876 - SP1	<10	N/A
" SP2	<10	
" SP3	<10	
" SP4	<10	
" SP5	<10	
" SP6	<10	
" SP7	<10	
" SP8	<10	
" SP9	<10	
" SP10	<10	
" SP11	<10	
" SP12	<10	
" SP13	<10	
" SP14	<10	
" SP15	<10	"

Note: Attach additional tables as needed based on number of soil sample or variations in sampling dates.

ATTACHED

c. Attach the original chain of custody record (**copies are not acceptable**) and the original laboratory data sheet (**copies are not acceptable**) for each sample.

d. Attach the "Total Potential VOC Emissions Calculations" for soil removed.

N/A

e. Indicate current method and location of soil management and/or treatment prior to final disposal:

NOT REQUIRED

f. Check the method of soil disposal used or to be used:

- ☒ Return to the excavation pit only when TPH is less than or equal to 100 ppm and depth of groundwater is greater than 5 feet from the base of the pit.
- ☒ Spread in a thin layer (6" or less) on site only when TPH is less than or equal to 100 ppm
- ☐ Disposal in a landfill (See attached "Guidelines for the Disposal of Non-Hazardous Petroleum Contaminated Wastes").
- ☐ Incineration.
- ☐ Thermal volatilization.
- ☐ Recycling facility
- ☐ Other N/A

g. If soil was disposed of prior to the submittal of this form, indicate the final destination below and attach copies of invoices, receipts, and "certificate of burn" (if soil was incinerated):

N/A

√ 9. TANK CLEANING

	YES	NO
a. The tank(s) were cleaned in accordance with American Petroleum Institute (API) Bulletin 2015 "Cleaning Petroleum Storage Tanks"?	☒	☐

If no, describe how tank(s) were cleaned:

b. Provide an estimate of the volume of sludge removed from the tank: SEE ATTACHED RECEIPT Gallons

c. Indicate the final destination of the sludge and attach invoices or receipts:

RECEIPT FOR BOTH TANK CLEANING & TANK DISPOSAL INCLUDED

10. ATTACHMENTS

Attach the following to the closure form in the following order as applicable to the type of closure site assessment performed. Check each box to indicate that a particular map or information is attached to the closure site assessment form. The section of the closure site assessment form that indicates the required attachment is shown.

☑		Topographic Map showing location of site (Section 2.a., 3.a., 4.a., & 5.a.)
☑		Area map showing general location of the site. Include land use on-site and within 500' of site. (Section 1)
	☐ N/A	Include locations of domestic and public water supply wells, and surface water intakes (Section 1)
☑		Plan and sectional views of the site including the following: (Section 2.b., 3.b., 4.b., & 5.b.)
	☑	Location of the closed tanks and piping including depth. Include any remaining tanks or piping at site. Include tank identification numbers.
	☑	Excavation dimensions of the tank system
	☑	Locations of soil samples taken for piping and tank which includes the analytical results.
	☐ N/A	Location of areas of visible contamination
	☐ N/A	Location of any stockpiled excavated soil
	☐ N/A	Location of soil borings for an in-place closure
☐ N/A		The location and depth of the one up-gradient and 3 down-gradient borings or monitoring wells (Section 6.a.)
☐ N/A		Map illustrating the most probable direction of groundwater flow (Section 6.a.)
☐ N/A		Schematic diagrams of the monitoring wells installed (Section 6.b.)
☐ N/A		Boring logs of soil borings (Section 3.b.,.5.b. &6.b.)
☐ N/A		Site Classification Checklist
☑		Invoices and/or receipts for sludge disposal (Section 9.c.)
☐ N/A		Invoices, manifests and certificates of burn or disposal for soil disposal (Section 8.f.)

☑		Attach the **original** chain of custody record (copies are not acceptable) for each sample which includes at least the following: (Sections 6.d., 7.b., & 8.c.)
	☑	Sample identification number,
	☑	Date and time sample was taken,
	☑	Name and title of person collecting sample (see certification requirement on page 15 of this form),
	☑	Type of sample (soil or water),
	☑	Type of sample container,
	☑	Method of preservation,
	☑	Date and time sample was relinquished,
	☑	Person relinquishing sample,
	☑	Date and time sample was received by lab,
	☑	Person receiving sample at lab.

☑		Attach the **original** laboratory data sheet (**copies are not acceptable**) which includes at least the following: (Sections 6.d., 7.b., & 8.c.)
	☑	A sample identification number which can be cross referenced with the soil sample locations indicated on the plan and sectional views required by Section 2.b., 3.b., 4.b., or 5.b. above
	☑	The sample analytical results with appropriate units,
	☑	The method used to analyze each sample,
	☑	The date and time the sample was analyzed,
	☑	The person analyzing the sample.

11. SIGNATURES

This form should be completed, signed, and returned, along with any other pertinent information, to the following address:

The Alabama Department of Environmental Management
Groundwater Branch
Post Office Box 301463
Montgomery, AL 36130-1463
(334) 270-5655

INCOMPLETE FORMS WILL BE RETURNED FOR CORRECTION.

Name of person taking soil and/or groundwater samples: GREG A KARSTENS

Company: KARST ENVIRONMENTAL

Telephone Number: (205) 979-4320

I certify under penalty of law that I have obtained representative soil and/or groundwater samples using accepted sampling procedures.

Signature: Greg A Karstens Date: 9-13-00

Either an Alabama Licensed Professional Geologist or an Alabama Registered Professional Engineer must sign this form:

I certify under penalty of law that I have performed this closure site assessment in accordance with accepted soil and groundwater investigation practices; I am either an Alabama Licensed Professional Geologist or an Alabama Registered Professional Engineer; I am experienced in soil and groundwater investigations; and the information I have submitted, to the best of my knowledge and belief, is true, accurate, and complete.

Signature of Alabama Licensed Professional Geologist: Greg A Karstens Date: 9-13-00

Signature of Alabama Registered Professional Engineer: Date:

Licensed P.G. or Registered P.E. Number: NO # 875

GREG A. KARSTENS LIC. 0875 ALABAMA LICENSED PROFESSIONAL GEOLOGIST

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

X Signature of Tank Owner: _____ Date: _____

FOR ADEM USE ONLY:

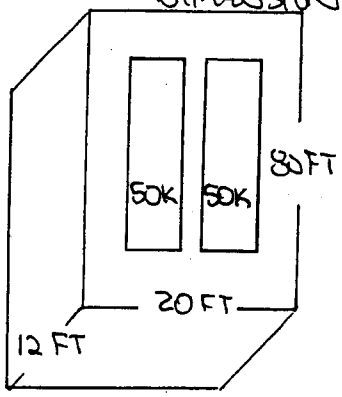
Reviewed By: _____ Date: _____

COMMENTS:

FORM 1133
9/15/97

Attachments: UST Closure Guidelines

UST EXCAVATION DIMENSIONS:



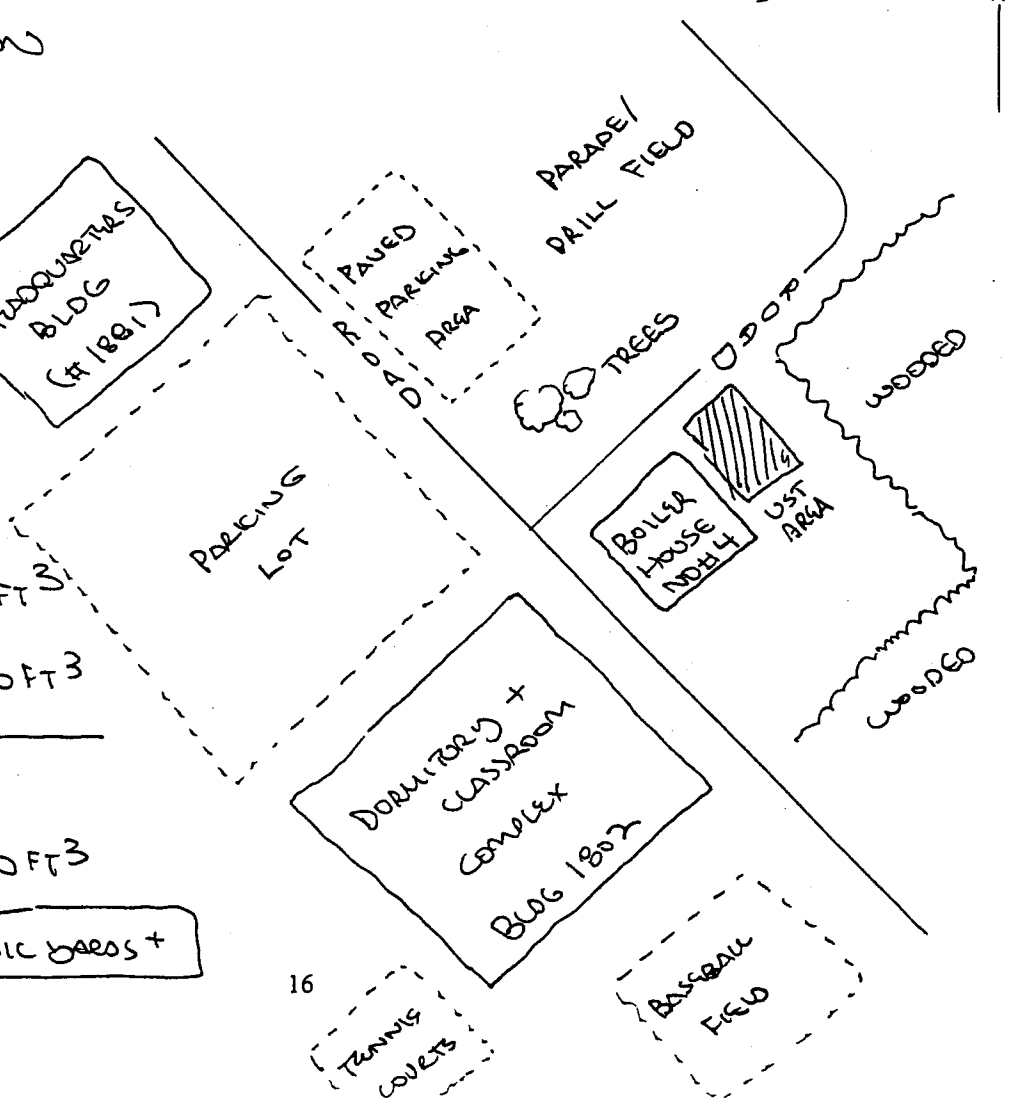
TOTAL VOLUME OF UST EXCAVATION = 19,200 FT^3

VOLUME OF 2 USTS: - 11,000 FT^3

VOLUME OF SOIL REMOVED = 8,200 FT^3

OR: 300 CUBIC YARDS +

SURROUNDING LAND USE DIAGRAM:
(NOT TO SCALE)



LABORATORY DATA SHEET

KARST ENVIRONMENTAL
628 Valley Street
Birmingham, Alabama 35226

Laboratory
Invoice Number: K00-08-25

CLIENT: ALLEN EXCAVATING COMPANY
P O Drawer 456
Talladega, Alabama 35160

Report Date: 9/13/00

PROJECT NAME: U S ARMY--BUILDING 1876
Boiler House No#4
Ft. McClellan, Alabama

Sample location: UST & Piping Closure
Sampler: Greg A. Karstens, P.G.

Date collected: 8/24-30/00
Date analyzed: 8/25-30/00

TOTAL PETROLEUM HYDROCARBONS, (TPH)

LAB ID NO#	FIELD ID NO#	TPH mg/kg
11762	1876-W1	<10
11763	1876-W2	<10
11764	1876-W3	<10
11765	1876-W4	<10
11766	1876-W5	<10
11767	1876-W6	<10
11768	1876-W7	<10
11769	1876-W8	<10
11770	1876-W9	<10
11771	1876-W10	<10
11772	1876-PI1	<10
11773	1876-PI2	<10
11774	1876-PI3	<10
11775	1876-PI4	<10
11776	1876-PI5	<10
11777	1876-PI6	<10
11778	1876-SP1	<10

LAB ANALYST: Greg Karstens
TEST METHOD: TPH, 5520 IR

Respectfully submitted

Greg A . Karstens, geologist
Karst Environmental

KARST ENVIRONMENTAL
ENVIRONMENTAL CONSULTING

LABORATORY DATA SHEET

KARST ENVIRONMENTAL
628 Valley Street
Birmingham, Alabama 35226

Laboratory
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CLIENT: ALLEN EXCAVATING COMPANY
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Boiler House No#4
Ft. McClellan, Alabama

Sample location: UST & Piping Closure
Sampler: Greg A. Karstens, P.G.

Date collected: 8/24-30/00
Date analyzed: 8/25-30/00

TOTAL PETROLEUM HYDROCARBONS, (TPH)

LAB ID NO#	FIELD ID NO#	TPH mg/kg
11779	1876-SP2	<10
11780	1876-SP3	<10
11781	1876-SP4	<10
11782	1876-SP5	<10
11783	1876-SP6	<10
11784	1876-SP7	<10
11785	1876-SP8	<10
11786	1876-SP9	<10
11787	1876-SP10	<10
11788	1876-SP11	<10
11789	1876-SP12	<10
11790	1876-SP13	<10
11791	1876-SP14	<10
11792	1876-SP15	<10

LAB ANALYST: Greg Karstens
TEST METHOD: TPH, 5520 IR

Respectfully submitted

Greg A . Karstens, geologist
Karst Environmental

KARST ENVIRONMENTAL
ENVIRONMENTAL CONSULTING

KARST ENVIRONMENTAL

Environmental Testing Laboratory

CHAIN OF CUSTODY

LAB INVOICE #

CLIENT: ALLEN EXCAVATING COMPANY
PO DRAWER 456
TALLADEGA, ALABAMA
35160
Contact: KEN ALLEN, JR Phone: (256) 362-4261

Date Received: Date Results Needed:
Send Invoice to: P.O.#:
Special Instructions:
Phone Results to: at -
FAX Results to: at -

PROJECT NAME: US ARMY - BLDG 1876 (BOLSE # 4)
PROJECT LOC: FT. McCLELLAN
PROJECT #: K00-08-25 P.O. #:
SAMPLER: KARSTENS, P.G. SAMPLE DATE: 8/25-30/00

LAB I.D.	FIELD I.D.	MATRIX	DATE	TIME	# BTL	PARAMETERS: TPH					ON ICE	PRESERVATIVE
	1876-W1 USUAL OF	SOIL/	8/25	1600	1	✓					YES	Ø
	" W2 UST	ROCK		1604		✓						
	" W3 EXCAVATION			1608		✓						
	" W4			1612		✓						
	" W5			1616		✓						
	" W6			1620		✓						
	" W7			1624		✓						
	" W8			1628		✓						
	" W9			1632		✓						
	" W10			1636		✓						
	1876 PI1 PIPING	SOIL	8/30	1700		✓						
	" PI2			1708		✓						
	" PI3			1712		✓						
	" PI4			1720		✓						
	" PI5			1725		✓						
	✓ PI6			1730	2	✓						

Comments:

RELINQUISHED BY	DATE/TIME	RECEIVED BY
SIGNATURE: Greg A Karstens	Date: 8/30/00	SIGNATURE: Greg A Karstens
PRINT NAME: GREG A KARSTENS	Time(24hr) 1830	PRINT NAME: GREG A. KARSTENS
RELINQUISHED BY	DATE/TIME	RECEIVED BY
SIGNATURE:	Date:	SIGNATURE:
PRINT NAME:	Time(24hr)	PRINT NAME:

KARST ENVIRONMENTAL

Environmental Testing Laboratory

CHAIN OF CUSTODY

LAB INVOICE # [redacted]

CLIENT: ALLEN EXCAVATING COMPANY
PO DRAWER 456
TALLADEGA, ALABAMA
35160

Contact: KEN ALLEN, JR Phone: (256) 362-4261

Date Received: Date Results Needed:

Send Invoice to: P.O.#:

Special Instructions:

Phone Results to: _____ at _____ - _____

FAX Results to: _____ at _____ - _____

PROJECT NAME: U S ARMY -- BLDG 1876 (BOILER #4)

PROJECT LOC: FT. MCCLELLAN

PROJECT #: K00-08-25

P.O. #:

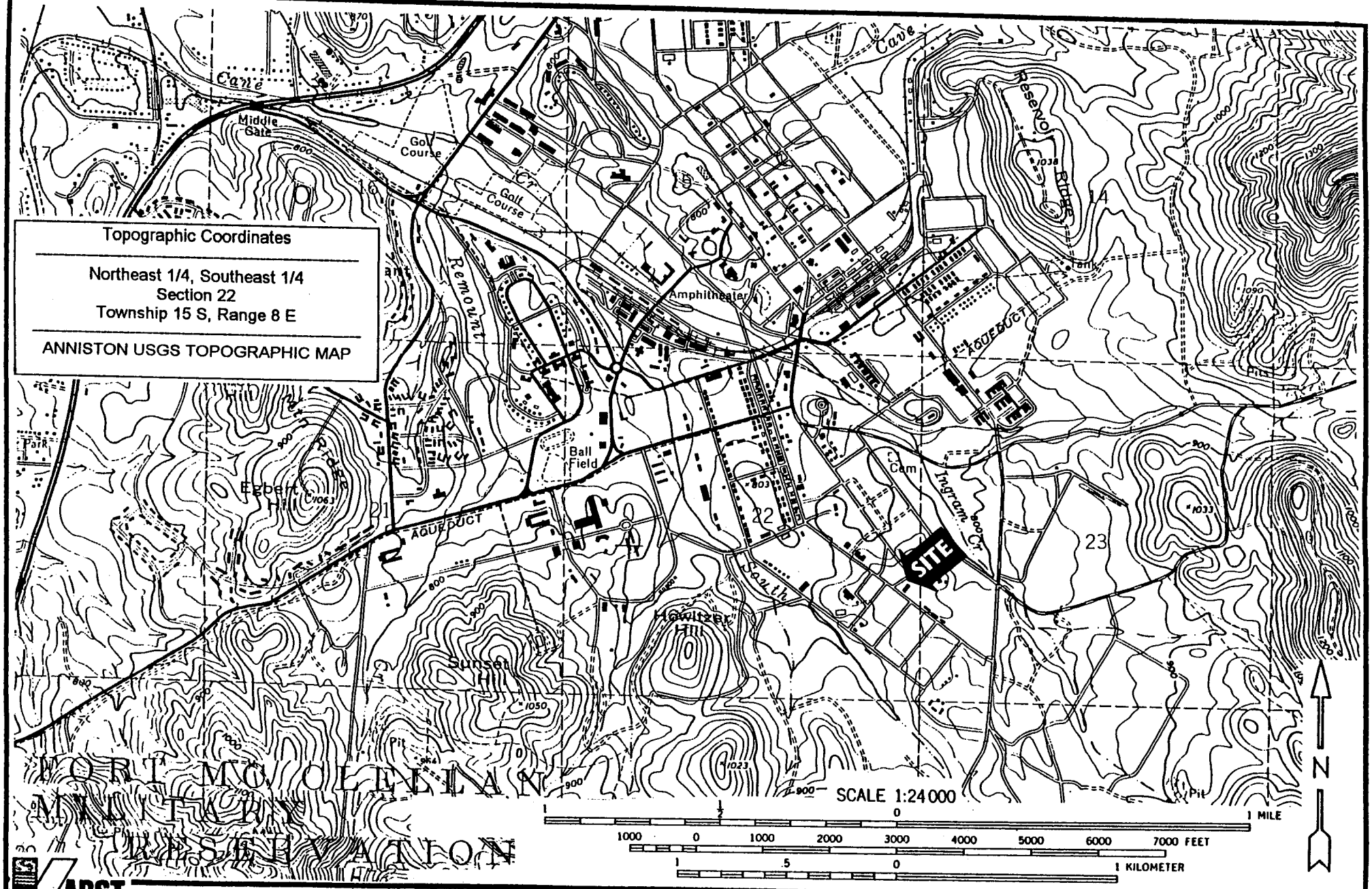
SAMPLER: KARSTENS, P.G.

SAMPLE DATE: 8/25/00

LAB I.D.	FIELD I.D.	MATRIX	DATE	TIME	# BTL	PARAMETERS: TPH					ON ICE	PRESERVATIVE
	1876-SP1 SPOILS	SOIL + GRAVEL	8/25	0910	1	✓					YES	Ø
	" SP2			0911		✓						
	" SP3			0912		✓						
	" SP4			0913		✓						
	" SP5			0914		✓						
	" SP6			0915		✓						
	" SP7			0916		✓						
	" SP8			0917		✓						
	" SP9			0918		✓						
	" SP10			0919		✓						
	" SP11			0920		✓						
	" SP12			0921		✓						
	" SP13			0922		✓						
	" SP14			0923		✓						
	" SP15	"	"	0924	"	✓					"	"

Comments:

RELINQUISHED BY	DATE/TIME	RECEIVED BY
SIGNATURE: Greg A Karstens	Date: 8/26/00	SIGNATURE: Greg A Karstens
PRINT NAME: GREG A KARSTENS	Time(24hr) 1000	PRINT NAME: GREG A. KARSTENS
RELINQUISHED BY	**DATE/TIME**	**RECEIVED BY**
SIGNATURE:	Date:	SIGNATURE:
PRINT NAME:	Time(24hr)	PRINT NAME:



KARST ENVIRONMENTAL
ENVIRONMENTAL CONSULTING
628 VALLEY STREET • BLUFF PARK, ALABAMA 35226

UST PERMANENT CLOSURE SITE ASSESSMENT

TOPOGRAPHIC SITE LOCATION MAP

FIGURE 1

SITE NAME:

U S ARMY–BUILDING 1876
BOILER HOUSE NO#4
FT. McCLELLAN, ALABAMA

LEGEND

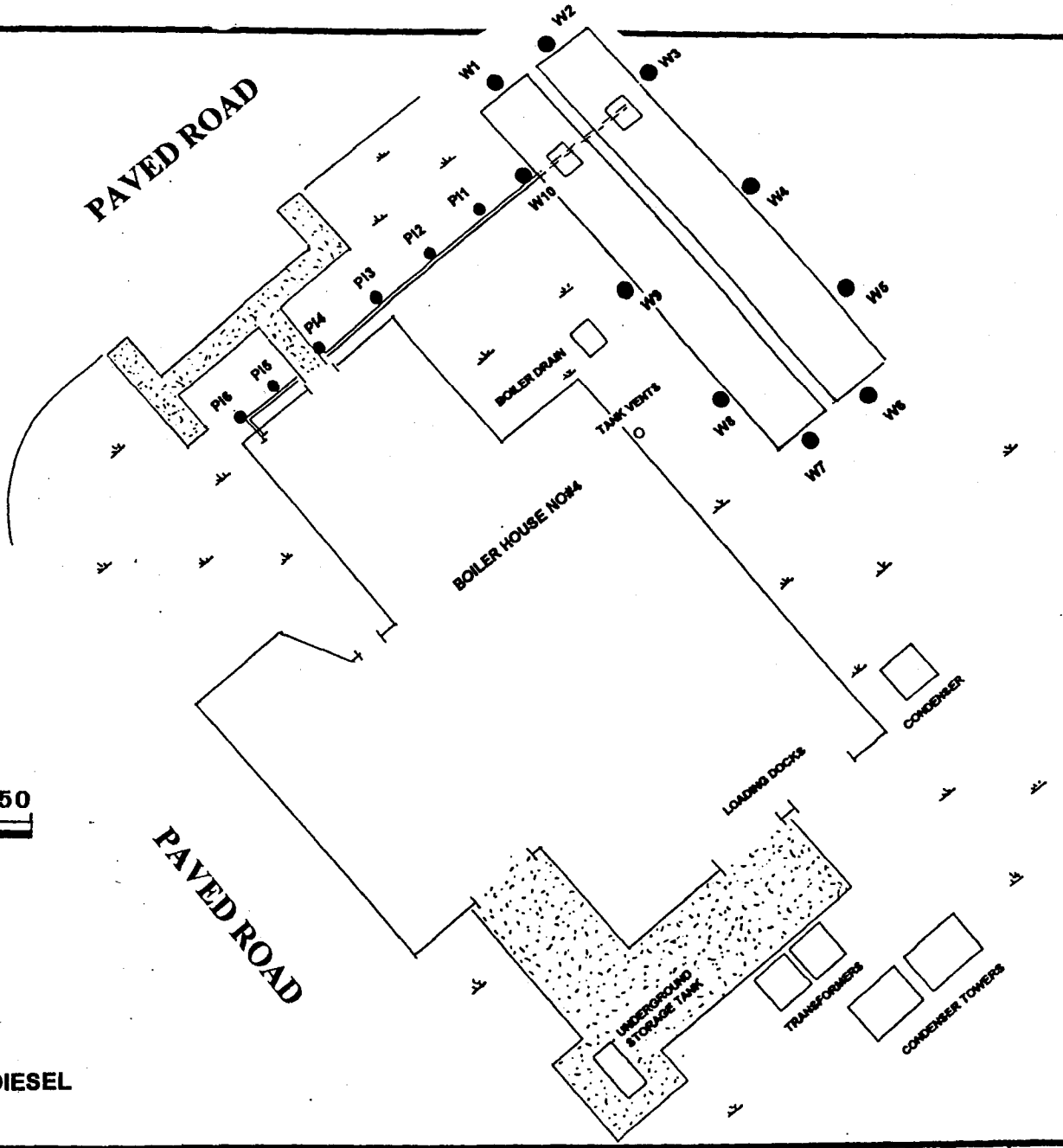
UST Area(s)
- ○ Gasoline
- ⊘ Diesel
- ○ Kerosene
- ○ Used/New Oil

● Soil Sample Location

N/A Water Sample
- ○ Soil Boring
- ○ Monitor Well
- ○ UST pit

Concrete Areas

Grass Areas



CLOSED USTs:
2-50,000 GALLON (120"x80') #6 DIESEL
INTERIOR-LINED STEEL

KARST ENVIRONMENTAL
ENVIRONMENTAL CONSULTING
628 VALLEY STREET • BLUFF PARK, ALABAMA 35226

UST PERMANENT CLOSURE SITE ASSESSMENT

FACILITY PLAN MAP & SAMPLING LOCATIONS

FIGURE 2

VIEW LOOKING SOUTHEAST

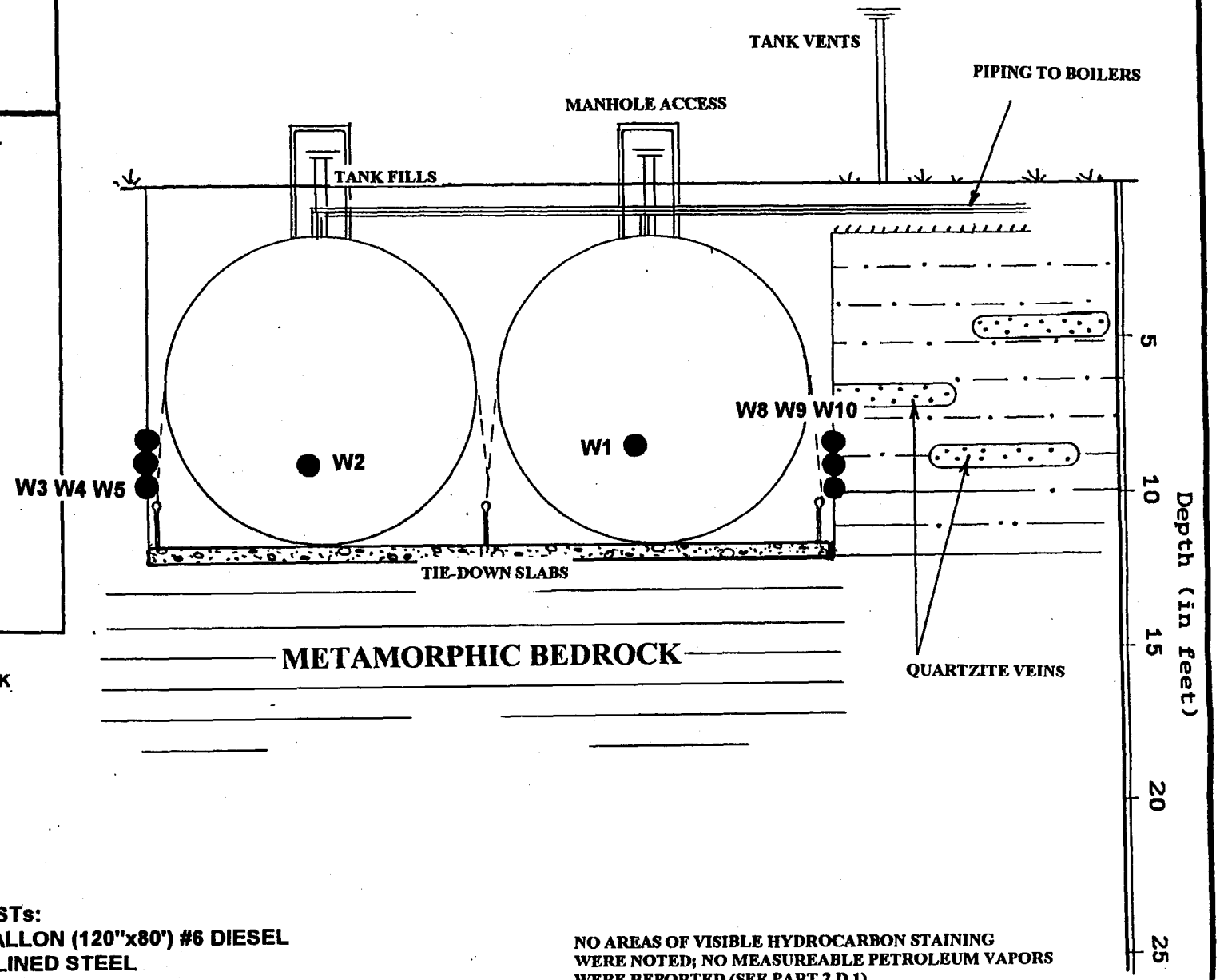
SITE NAME:

U S ARMY--BUILDING 1876
BOILER HOUSE NO#4
FT. McCLELLAN, ALABAMA

LEGEND

- Sand
- Clay
- Silty/Sandy Clay
- Sandstone
- Limestone
- Shale
- Chert
- Limits of Excavation
- Groundwater Observed
  - ○ Yes
  - ⊘ No
- ● Soil Test Area

GROUNDWATER WAS NOT OBSERVED TO 12 FEET; HARD METAMORPHIC ROCK



CLOSED USTs:
2-50,000 GALLON (120"x80') #6 DIESEL
INTERIOR-LINED STEEL

NO AREAS OF VISIBLE HYDROCARBON STAINING WERE NOTED; NO MEASUREABLE PETROLEUM VAPORS WERE REPORTED (SEE PART 2.D.1)

KARST ENVIRONMENTAL
ENVIRONMENTAL CONSULTING
630 VALLEY STREET • BLUFF PARK, ALABAMA 35220

UST PERMANENT CLOSURE SITE ASSESSMENT

TANK EXCAVATION SECTIONAL VIEW & SAMPLING LOCATIONS

FIGURE 3

CERTIFICATE OF PROPER DISPOSAL

SOUTHERN TANK SALVAGE

A SUBSIDIARY OF

RAYCO, INC.

9385 Gunn Road

MONTGOMERY, ALABAMA 36117

(205) 272-5524

Date 9-12-2000 19

Equipment Description EMPTY PETROLEUM STORAGE TANKS No. 2 Size 50,000

Transferred to RAYCO INC Transferred from ALLEN OIL CO (FT MCCLELLAN, ANNISTON, AL)

How Shipped RAYCOS TRUCKS Freight Charges $2500.00

Remarks RAYCO INC HEREBY CERTIFIES THAT THE TANKS HAVE BEEN PROPERLY DISPOSED OF IN ACCORDANCE WITH API 1604 AND A.D.E.M.'S GUIDELINES. THE TANKS CONTAINED -0- GALLONS OF SLUDGE.

THE TANKS HAVE BEEN CUT UP FOR SCRAP AND DEPOSITED AT MONTGOMERY IRON AND METAL JUNK YARD.

THE FOREGOING IS TRUE TO THE BEST OF MY KNOWLEDGE.

RAY THIBEAULT PRESIDENT RAYCO INC: A. Ray Thibeault

Received by DON MIMS Transferred by KEN ALLEN

Date 9-12-2000 Date 9-12-2000

205-741-4320

R & H
WASTE OIL, INC.

P. O. BOX 281
SYLACAUGA, ALABAMA 35150-0281
(256) 245-3205

CUSTOMER'S ORDER NO.	PHONE	DATE
		Aug. 22 2000

NAME Allen Excavating, Inc

ADDRESS Job Site ' Anniston Army Depot

Anniston, Ala.

SOLD BY	CASH	C.O.D.	CHARGE	ON ACCT.	MDSE. RET'D.	PAID OUT
				✓		

QTY.	DESCRIPTION	PRICE	AMOUNT
	Total Tanks Pumped		
	(6)		
*	Boiler Plant #2 - Tanks Pumped = 2		
-	waste water 4,000 gal.		
-	Fuel Oil 400 gal		
*	Boiler Plant #3 - Tanks Pumped = 2		
-	Fuel oil 300 gal		
*	Boiler Plant # 4 - Tanks Pumped = 2		
-	waste water 3,000 gal.		
(7,000)	Total Gal waste water	.50¢ gal.	
(700)	Total Gal Fuel Oil	← no charge	
			$3,500.00
	(Net Thirty Days)	TAX	
RECEIVED BY		TOTAL	$3,500.00

All claims and returned goods MUST be accompanied by this bill.

Thank You

3351